Claims:

1. (Currently amended) A power supply, comprising:

a solid oxide fuel cell system for providing a first source of power, said solid oxide fuel cell system also producing heat waste;

a first thermionic device for providing a second source of power, said first thermionic device comprising a cathode and an anode for providing said second source of power from said heat waste which is provided to said thermionic device; and

wherein said heat waste is in fluid communication with a first heat exchanger of said thermionic device.

2. (Withdrawn) The power supply as in claim 1, further comprising:

an exhaust conduit providing fluid communication between an exhaust of said fuel cell system and a heat exchanger of said first thermionic device.

3. (Withdrawn) The power supply as in claim 1, wherein said heat waste is generated by said solid oxide fuel cell system before, during, and after said solid oxide fuel cell is providing said first source of power.

4. (Withdrawn – Currently amended) The power supply as in claim 1, wherein said first heat exchanger is configured to provide heat to ~~a~~ the cathode of said first thermionic device.

5. (Withdrawn – Currently amended) The power supply as in claim 4, wherein said cathode is located in a housing of said first thermionic device and said cathode is separated from ~~an~~ the anode of said first thermionic device, wherein said heat causes electrons to separate from said cathode.

6. (Withdrawn) The power supply as in claim 5, wherein a vacuum is disposed between said anode and said cathode.

7. (Withdrawn) The power supply as in claim 4, wherein said first thermionic device is configured to provide power when a heat source of approximately 700 degrees Celsius is provided to said cathode.

8. (Withdrawn) The power supply as in claim 7, wherein said power supply is configured for use in a vehicle.

9. (Withdrawn) The power supply as in claim 7, further comprising a power conditioner for receiving and conditioning power generated by said fuel cell system and said first thermionic device.

10. (Withdrawn) The power supply as in claim 1, wherein said fuel cell system comprises a plurality of fuel cell stacks providing heat waste to a plurality of thermionic devices.

11. (Withdrawn – Currently amended) The power supply as in claim 1, further comprising a second heat exchanger, said second heat exchanger providing an inlet and an exhaust of air to ~~an~~ the anode of said first thermionic device, wherein unheated air is supplied to said inlet and air heated by said anode is supplied to said exhaust, said anode being maintained at a temperature differential between ~~a~~ the cathode of said first thermionic device, said second heat exchanger also provides an exhaust to an inlet conduit of said fuel cell system.

12. (Withdrawn) The power supply as in claim 1, wherein said heat waste of said solid oxide fuel cell system is within a range defined by a lower limit of 400 degrees Celsius and an upper limit of 1,200 degrees Celsius when said solid oxide fuel cell system is providing said first source of power.

13. (Previously presented) The power supply as in Claim 1, further comprising:

a start up combustor for providing another source of heat; and

an exhaust conduit providing fluid communication between an exhaust of said fuel cell system and an exhaust of said start up combustor to said first heat exchanger.

14. (Original) The power supply as in claim 13, wherein said heat waste of said solid oxide fuel cell system is within a range defined by a lower limit of 400 degrees Celsius and an upper limit of 1,200 degrees Celsius when said solid oxide fuel cell system is providing said first source of power.

15. (Currently amended) The power supply as in claim 13, further comprising a second heat exchanger, said second heat exchanger providing an inlet and an exhaust of air to an anode of said first thermionic device, wherein unheated air is supplied to said inlet and air heated by said anode is supplied to said exhaust, wherein said anode is maintained at a different temperature ~~differential between a~~ than the temperature of the cathode of said first thermionic device.

16. (Previously presented) The power supply as in claim 13, wherein said first thermionic device and said start up combustor provide an initial source of power during a warm up phase of said fuel cell system.

17. (Original) The power supply as in claim 13, wherein said start up combustor is deactivated after said fuel cell system is providing power and said heat waste.

18. (Withdrawn – Currently amended) A method for generating power, comprising:

generating power from a thermionic device comprising a cathode and an anode, said thermionic device generating power from heat received from a start up combustor under a first operating condition; and

generating power from a solid oxide fuel system, said solid oxide fuel system generating a heat exhaust when said solid oxide fuel system generates power, said heat exhaust being routed to said thermionic device, wherein said thermionic device generates power from heat exhaust when said heat exhaust reaches a predetermined temperature for energy conversion by said thermionic device.

19. (Withdrawn) The method as in claim 18, wherein said start up combustor is shut down when said heat exhaust reaches a predetermined temperature for energy conversion by said thermionic device.

20. (Withdrawn) The method as in claim 18, wherein said predetermined temperature is within the range defined by a lower limit of 400 degrees Celsius and an upper limit of 1,200 degrees Celsius.

21. (Original) The power supply as in claim 1, further comprising:

a means for providing fluid communication between an exhaust of said fuel cell system and a heat exchanger of said thermionic device.

22. (Currently amended) A power supply as in Claim 1, further comprising:

a combustor for providing another source of heat;

an exhaust conduit providing fluid communication between said exhaust of said fuel cell system and an inlet of said combustor wherein said combustor heats said exhaust of said fuel cell system to a temperature which causes a second thermionic device comprising a cathode and an anode and coupled to said combustor to provide a third source of power; and

a second heat exchanger configured and positioned to cool or maintain the temperature of ~~an~~ the anode of said second thermionic device.

23. (Previously presented) The power supply as in claim 22, wherein said second heat exchanger is coupled to a cooling system for cooling the anode of said second thermionic device.

24. (Previously presented) The power supply as in claim 22, wherein said second heat exchanger is configured to receive ambient air for cooling the anode of said second thermionic device.

25. (Previously presented) The power supply as in claim 22, wherein said first heat exchanger is configured and positioned to cool or maintain the temperature of an anode of said first thermionic device.